MATH 0361 NAME:_____

PRACTICE TEST 1 - CHAPTER 1 AND 2

Beginning and Intermediate Algebra by Messersmith, 4th edition

Evaluate. Express number in simplest form using integers or fractions:

1. $2+3(10-7)^3$

2. $28\div(4-2)^2+1\cdot 6$

3. $\dfrac{(5+7)^2-2^6}{8\cdot 5-4\cdot 7}$

4. Find the perimeter of a rectangle with length 7 meters and width 5 meters. Include the correct units.

5. Find the area of a rectangle with length 9 feet and width 6 feet. Include the correct units.

6. Find the circumference of the circle if a = 16 feet. Include the correct units. Use 3.14 for π.

7. Find the volume of a rectangular solid measuring 17 cm long, 7 cm wide, and 7 cm high. Include the correct units.

Evaluate the expression:

8. Evaluate the expression when $d=\dfrac{-9}{8}$; $16d-11$

9. Evaluate the expression when a = 2 and b = 1. $\dfrac{a+7b}{a-5b}$

Simplify:

10. $9(m+4)$

11. $-3(-8a-4b+3)$

12. $-5(p-1)-(5-11p)$

13. Write a mathematical expression for the phrase and simplify, if possible. Let x represent the unknown quantity. The sum of twelve and twice a number.

14. Simplify each:

$(-8)^2 =$ _____ $-6^2 =$ _____

Simplify the expression. Write answers with positive exponents only:

15. $(6a^6)(-3a^9)(7a^7)$

16. $\left(\frac{y}{4}\right)^3$

17. $(3k^6)^2(3k^8)^2$

18. $3vw^3\left(-v^4w^6\right)^2$

19. $\left(\frac{-3}{2}d^7\right)^3(3d)^2$

20. $\left(\frac{3}{2}t^9\right)^4\left(\frac{8}{9}t^4\right)^2$

Simplify the expression. Write answers with positive exponents only:

21. $\frac{\left(-6k^8\right)^2}{\left(2m^2\right)^4}$

22. 2^{-6}

23. $\left(\frac{5}{8}\right)^{-3}$

24. $\frac{p^{-10}}{q^{-12}}$

25. $\frac{11t^8u^{-5}}{5v^{-7}w^2}$

26. $\frac{33x^8}{36x^5}$

27. $\frac{m^{-5}}{m^{-2}}$

28. $\left(\frac{4r^4s}{7r^{-2}s^{-3}}\right)^2$

29. $\left(\frac{4s^5}{t^6}\right)^{-2}$

30. $\left(-ab^4c^7\right)^3\left(\frac{a^2}{bc}\right)^2$

MATH0361 Practice Test 1 Answers:

1) 83

2) 13

3) $\frac{20}{3}$

4) 24 m

5) 54 ft^2

6) 100.48 feet

7) 833 cm^3

8) -29

9) -3

10) $9m+36$

11) $24a+12b-9$

12) $6p$

13) $12+2x$

14) 64, -36

15) $-126a^{22}$

16) $\frac{y^3}{64}$

17) $81k^{28}$

18) $3v^9w^{15}$

19) $-\frac{243}{8}d^{23}$

20) $4t^{44}$

21) $\frac{9k^{16}}{4m^8}$

22) $\frac{1}{64}$

23) $\frac{512}{125}$

24) $\frac{q^{12}}{p^{10}}$

25) $\frac{11t^8v^7}{5u^5w^2}$

26) $\frac{11x^3}{12}$

27) $\frac{1}{m^3}$

28) $\frac{16}{49}r^{12}s^8$

29) $\frac{t^{12}}{16s^{10}}$

30) $-a^7b^{10}c^{19}$